

# Job Entry Subsystem (JES) Interface Modules

The Com-plete Remote Job Entry (RJE) functions and online utility UQ require an interface with the operating system's Job Entry Subsystem (JES) in order to submit jobs and retrieve job queue information. In order to provide modularity and JES independence, all RJE and UQ functions requiring interface with the installation's JES pass through the Com-plete JES Interface Module (JIM). The JIM is a collection of routines used by Com-plete and its utilities to accomplish functions that are dependent upon the installation's JES. A JIM exists for each JES or spooling system supported by Com-plete. Some of the JIMs are distributed in source and load module form, while others are in load module form only.

The Com-plete JIMs, along with the JES systems and operating systems in which they are supported, are listed below.

System	JES2	JES3	VSE/Power	OS
MVS	JESCSERV	JESCSERV		OS/390 2.6 and higher
MVS	JES2CSER	JES3SERV		up tp OS/390 2.10
VSE/ESA			TTJIPOW2/ TTYIPOW3	VSE/ESA 2.1 - 2.4 VSE/ESA 2.5 - 2.6

This chapter covers the following topics:

- MVS JES Interface Modules
- Extended Console Server

## MVS JES Interface Modules

SOFTWARE AG recommends to use the common interface module JESCSERV. Access to JES is done by the internally called Entire System Server JES interface XCOMJESC. This one exploits the OS/390 MVS Subsystem Interface functions 79 (SYSOUT API) and 80 (Extended Status) and accesses OS and JES2 dependant controlblocks. It addresses the life-of-job subsystem, i.e.the primary or alternate JES subsystem were Com-plete was initiated. Whenever you are upgrading your OS and/or JES environment please ask SAG support about necessary updates to XCOMJESC. XCOMJESC issues SAF checks for class JESSPOOL. Applymod 10 has no influence on these checks.

The common interface module JESCSERV is delivered as load module. There are no OS or JES dependencies, so you don't need to assemble it. JES dependancies have been moved to the TTJ2MVS (JES2) and TTJ3MVS (JES3). These modules together with TTJIMVS create the UQ A display. Whenever you upgrade your JES, you have to reassemble them using the new JES MACLIBs.

For JES3 additional restrictions apply:

- Input JCL (JESJCLIN) and SYSIN datasets are not selectable.

- Active SYSOUT datasets (not yet closed and freed) are not selectable. This includes the active SYSLOG.
- UPDATE authority is required to access spool datasets.
- MODIFY commands for jobs in DJC networks are currently not possible.

As soon as IBM lifts any of these restrictions in the Subsystem Interface, our JES interfaces will be modified.

If your OS version doesn't meet the prerequisites to use this interface, you can still use the old interfaces JES2SERV/JES3SERV delivered on the source library. For more information see the Installation documentation.

## JES3

The MVS JES3 JIM contains no direct interface with the JES3 subsystem. Since Com-plete and the JES3 global processor may be on separate processors, information and commands are passed via an MVS file. The JES3 information is extracted by a Software AG-supplied Dynamic Support Program (DSP) and passed via the MVS file to the JES3 JIM (TTJIJES3). The DSP updates the information in the MVS file approximately every 10 to 20 seconds in a normally loaded JES3 system; this time may be longer, however, if the JES3 system is lightly loaded.

This dataset is allocated and initialized during Com-plete installation, and must be defined using the UQJ3JOBS DD card in the Com-plete startup procedure (see the Installation and Migration documentation).

By default, the dataset contains 5 tracks of information. The first 4 tracks are used to pass job information from the DSP to Com-plete. The information tracks must be initialized to contain 32720 byte records. These records contain individual 48 byte entries describing jobs found in the JES3 system, the maximum number of jobs is therefore  $(4 * 32720)/48=2726$ . If it is required to increase the maximum number of jobs, then the variable NTRACKS in the DSP module IATVQJ3 must be increased and the JES3 interface reinstalled.

The remaining track is used to transfer JES3 operator commands from the Com-plete JES3 interface to the DSP for execution by JES3. The command track consists of 80 byte records and must be initialized to contain the maximum of 80 byte blocks which will fit on the device type on which the dataset is to be placed. Please consult the hardware specifications for the device type to obtain this information.

## JES2/JES3 Server Commands (only for the old interfaces JES2SERV and JES3SERV)

Commands can be passed to the JES2/JES3 servers using the SERV operator command of Com-plete. The format for operator commands to the JES subsystems is:

```
SERV server-id,cccc,oooo,oooo
```

where:

SERV	is the Com-plete operator command
server-id	is the JES2/JES3 server name
cccc	is the command to be issued (see below)
oooo	are the optional parameters for the issued command

Available commands are:

STRT,j1,j2...jn	causes the server to initialize control blocks for the JES2/JES3 subsystem(s) as specified in the option parameters j1-jn. Example: SERV JES2,STRT,JES2
STOP,j1,j2...jn	causes the server to terminate the Com-plete server environments of the JES2/JES3 subsystems as specified by option parameters j1-jn. Example: SERV JES2,STOP,JES2
REFR,j1,j2...jn	causes the server to refresh the Com-plete server environments of the JES2/JES3 subsystems as specified by option parameters j1-jn. A refresh causes the JES2/JES3 server to update the server view of the JES environment. This includes closing and deallocating spool datasets which JES no longer uses, and allocating and opening new spool datasets added dynamically to the JES environment. Example: SERV JES2,REFR,JES2
STAT	causes a one-line message to be issued, indicating the status of each of the JES2/JES3 subsystems which this server has initialized. Example: SERV JES2,STAT

## Extended Console Server

On systems that support Extended Console the Com-plete Console Server should be used to receive the Console messages. If running in a Sysplex environment this is the only way to receive Console messages since there is no CRWTOTAB any more. The console messages are stored in a table and can be displayed with the UQ M (console display) function. Messages from 1, 2, 3 or all systems in a sysplex may be received according to the server configuration. Also the number of stored messages can be configured (default=512 messages). The Console Server is started automatically at Com-plete startup if a SERVER statement (see below) is encountered in the SYSPARM member. It can also be activated/deactivated dynamically using the SERVER statement in UCTRL.

### Syntax:

```
SERVER=(name,TLINCONS,slots,consname,hcset,automsgs,scope1 ,scope2 ,scope3)
```

where:

name	is a unique server name within each copy of Com-plete.
TLINCONS	is the name of the server initialization program.
slots	specifies the number of messages held in the incore table.
consname	is the console name for MCSOPER Macro. It must be unique in the sysplex.
hcset	(Y/N) specifies whether the hardcopy set is to be received by this console.
automsgs	(Y/N) specifies whether messages that can be automated are to be enqueued to this console.
scope1	specifies the name of the first system from which messages are to be received or ALL to receive messages from all systems in the Sysplex. If not specified, only messages from the local system will be received.
scope2,scope3	specifies a second or third system from which messages are to be received. Do not code if scope1 is ALL.

**Example:**

```
SERVER=(CONSOLE,TLINCONS,2000,COMP51A,Y,Y,DAEF,DAEY)
```

**Note:**

Hcset=Y is required if outstanding replies are to be displayed. Note that only outstanding replies that arrived after the console was activated can be displayed.

If Automsgs=N is specified, users will not see the system replies to their operator commands.